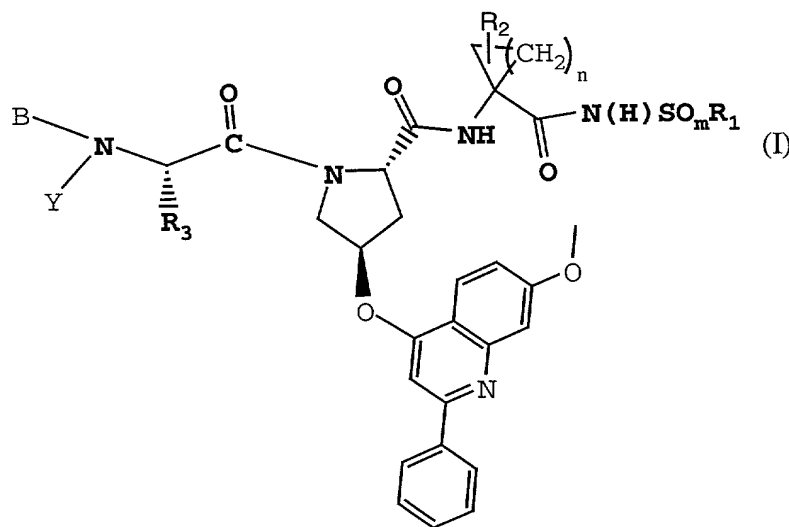


CLAIMS

What is claimed is:

- 5 1. A compound having the formula



wherein:

- (a) R_1 is C_{1-8} alkyl, C_{3-7} cycloalkyl, or C_{4-10} (alkylcycloalkyl), which are all optionally substituted from one to three times with halo, cyano, nitro, C_{1-6} alkoxy, amido, amino or phenyl, or R_1 is C_6 or C_{10} aryl which is optionally substituted from one to three times with halo, cyano, nitro, C_{1-6} alkyl, C_{1-6} alkoxy, amido, amino or phenyl;
- (b) m is 1 or 2;
- (c) n is 1 or 2;
- (d) R_2 is C_{1-6} alkyl, C_{2-6} alkenyl or C_{3-7} cycloalkyl, each optionally substituted from one to three times with halogen, or R_2 is H;
- (e) R_3 is C_{1-8} alkyl optionally substituted with phenyl, C_{3-12} alkenyl, C_{3-7} cycloalkyl, or C_{4-10} (alkylcycloalkyl), wherein the cycloalkyl or

alkylcycloalkyl are optionally substituted with hydroxy, C₁₋₆ alkyl, C₂₋₆ alkenyl; or C₁₋₆ alkoxy or R₃ together with the carbon atom to which it is attached forms a C₃₋₇ cycloalkyl group optionally substituted with C₂₋₆ alkenyl;

- 5 (f) Y is H, phenyl substituted with nitro, pyridyl substituted with nitro, or C₁₋₆ alkyl wherein said alkyl is optionally substituted with cyano, OH or C₃₋₇ cycloalkyl;
- 10 (g) B is H, C₁₋₆ alkyl, R₄-(C=O)-, R₄O(C=O)-, R₄-N(R₅)-C(=O)-, R₄-N(R₅)-C(=S)-, R₄SO₂-, or R₄-N(R₅)-SO₂-;
- 15 (h) R₄ is (i) C₁₋₁₀ alkyl optionally substituted with phenyl, carboxyl, C₁₋₆ alkanoyl, 1-3 halogen, hydroxy, -OC(O)C₁₋₆ alkyl, C₁₋₆ alkoxy, amino optionally mono-or-di substituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; or -O-phenyl optionally substituted with halogen or C₁₋₆ alkoxy; (ii) C₃₋₇ cycloalkyl, C₃₋₇ cycloalkoxy, or
- 20 C₄₋₁₀ alkylcyclo-alkyl, all optionally substituted with hydroxy, carboxyl, (C₁₋₆ alkoxy)carbonyl, amino optionally mono- or disubstituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (iii) amino optionally mono-or-di-substituted with C₁₋₆ alkyl;
- 25 amido; or (lower alkyl)amido; (iv) C₆ or C₁₀ aryl or C₇₋₁₆ aralkyl, all optionally substituted with C₁₋₆ alkyl, halogen, nitro, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-
- 30 substituted with C₁₋₆ alkyl; or (v) Het or (lower alkyl)-Het, both optionally substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆

- alkyl; (vi) bicyclo(1.1.1)pentane; (vii)
-C(O)OC₁₋₆ alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl; and
(i) R₅ is H or C₁₋₆ alkyl, said C₁₋₆alkyl optionally
substituted with 1-3 halogens;
5 or a pharmaceutically acceptable salt, solvate or
prodrug thereof.
2. A compound of Claim 1 wherein m is 2.
- 10 3. A compound of Claim 1 wherein n is 1.
4. A compound of Claim 1 wherein R₁ is cyclopropyl.
5. A compound of Claim 1 wherein R₁ is cyclobutyl.
- 15 6. A compound of Claim 1 wherein R₁ is optionally
substituted phenyl.
7. A compound of Claim 1 wherein R₂ is ethyl or
20 vinyl.
8. A compound of Claim 1 wherein R₃ is C₁₋₆ alkyl.
9. A compound of Claim 1 wherein m is 2, n is 1 and
25 R₂ is ethyl.
10. A compound of Claim 9 wherein R₁ is cyclopropyl.
11. A compound of Claim 9 wherein R₁ is cyclobutyl.
- 30 12. A compound of Claim 9 wherein R₁ is optionally
substituted phenyl.

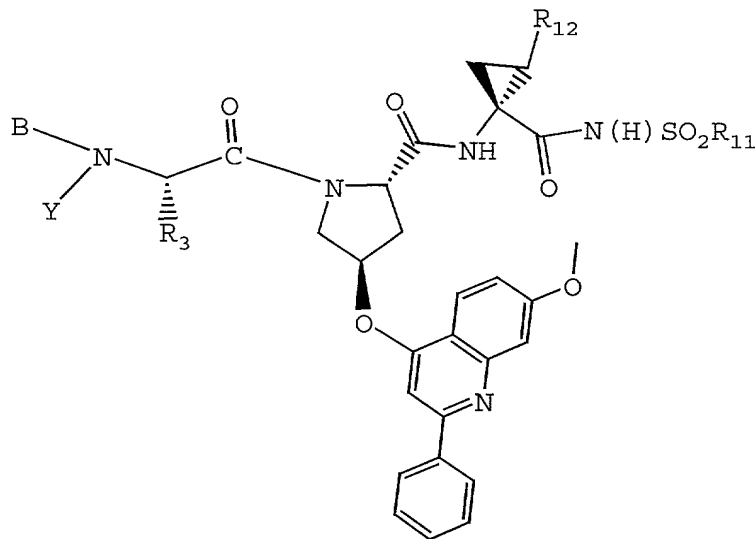
13. A compound of Claim 1 wherein m is 2, n is 1 and R₂ is vinyl.

14. A compound of Claim 13 wherein R₁ is cyclopropyl.

15. A compound of Claim 13 wherein R₁ is cyclobutyl.

16. A compound of Claim 13 wherein R₁ is optionally substituted phenyl.

17. A compound having the formula



wherein:

(a) R₁₁ is C₁₋₈ alkyl, C₃₋₇ cycloalkyl, or

C₄₋₁₀(alkylcyclo-alkyl), naphthyl, or phenyl

wherein said phenyl is optionally substituted from one to three times with halo, cyano, nitro, C₁₋₆ alkyl, C₁₋₆ alkoxy, amido, or phenyl;

(b) R₁₂ is C₁₋₆ alkyl, C₂₋₆ alkenyl or H;

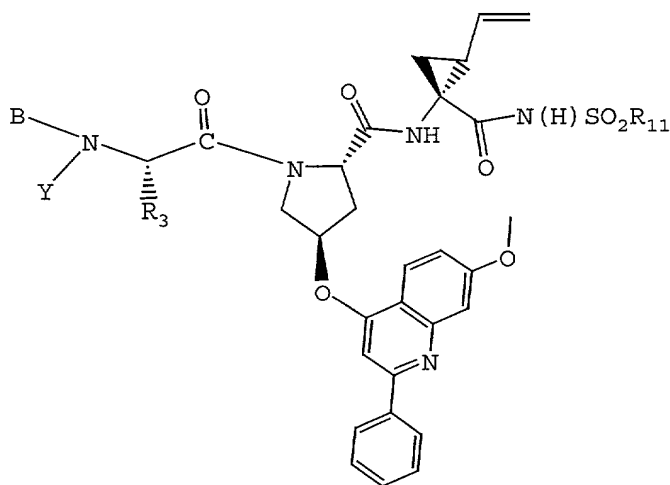
(c) R₃ is C₁₋₈ alkyl, C₃₋₁₂ alkenyl, C₃₋₇ cycloalkyl, or C₄₋₁₀ (alkylcycloalkyl), wherein the cycloalkyl or alkylcycloalkyl are optionally substituted with hydroxy, C₁₋₆ alkyl, C₁₋₆ alkenyl, or C₁₋₆ alkoxy;

- (d) Y is H or C₁₋₆ alkyl wherein said alkyl is optionally substituted with cyano or C₃₋₇ cycloalkyl;
- (e) B is H, R₄-(C=O)-, R₄O(C=O)-, R₄-N(R₅)-C(=O)-, R₄-N(R₅)-C(=S)-, R₄SO₂-, or R₄-N(R₅)-SO₂-;
- (f) R₄ is (i) C₁₋₁₀ alkyl optionally substituted with carboxyl, C₁₋₆ alkanoyl, hydroxy, C₁₋₆ alkoxy, amino optionally mono-or-di substituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (ii) C₃₋₇ cycloalkyl, C₃₋₇ cycloalkoxy, or C₄₋₁₀ alkylcycloalkyl, all optionally substituted with hydroxy, carboxyl, (C₁₋₆ alkoxy)carbonyl, amino optionally mono- or disubstituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (iii) amino optionally mono-or-di-substituted with C₁₋₆ alkyl; amido; or (lower alkyl)amido; (iv) C₆ or C₁₀ aryl or C₇₋₁₆ aralkyl, all optionally substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆ alkyl; or (v) Het or (lower alkyl)-Het, both optionally substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆ alkyl; and

(g) R₅ is H or C₁₋₆ alkyl, or a pharmaceutically acceptable salt, solvate or prodrug thereof.

18. A compound of Claim 17 wherein R₁₁ is selected from cyclopropyl, cyclobutyl or optionally substituted phenyl.

19. A compound having the formula



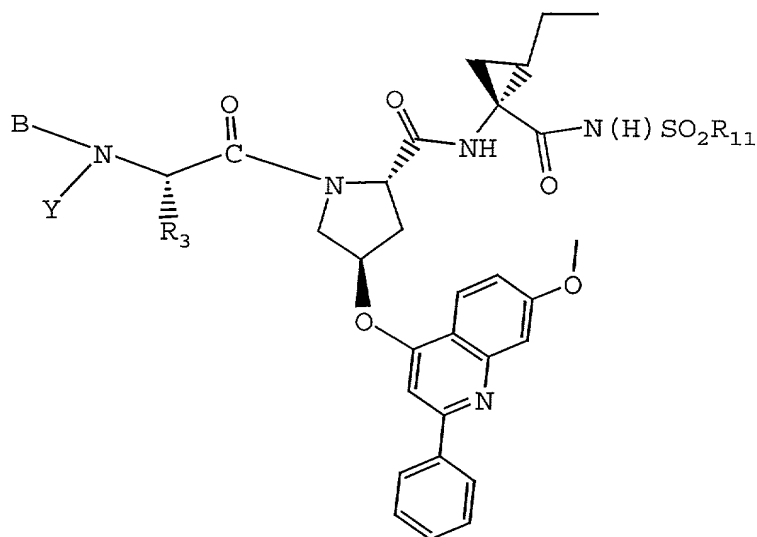
wherein:

- (a) R_{11} is C_{1-8} alkyl, C_{3-7} cycloalkyl, or C_{4-10} (alkylcyclo-alkyl), naphthyl, or phenyl wherein said phenyl is optionally substituted from one to three times with halo, cyano, nitro, C_{1-6} alkyl, C_{1-6} alkoxy, amido, or phenyl;
- (b) R_3 is C_{1-8} alkyl, C_{3-12} alkenyl, C_{3-7} cycloalkyl, or C_{4-10} (alkylcycloalkyl), wherein the cycloalkyl or alkylcycloalkyl are optionally substituted with hydroxy, C_{1-6} alkyl, C_{1-6} alkenyl, or C_{1-6} alkoxy;
- (c) Y is H or C_{1-6} alkyl wherein said alkyl is optionally substituted with cyano or C_{3-7} cycloalkyl;
- (d) B is H, $R_4-(C=O)-$, $R_4O(C=O)-$, $R_4-N(R_5)-C(=O)-$, $R_4-N(R_5)-C(=S)-$, R_4SO_2- , or $R_4-N(R_5)-SO_2-$;
- (e) R_4 is (i) C_{1-10} alkyl optionally substituted with carboxyl, C_{1-6} alkanoyl, hydroxy, C_{1-6} alkoxy, amino optionally mono-or-di substituted with C_{1-6} alkyl, amido, or (lower alkyl) amido; (ii) C_{3-7} cycloalkyl, C_{3-7} cycloalkoxy, or C_{4-10} alkylcyclo-alkyl, all optionally substituted with hydroxy, carboxyl, (C_{1-6} alkoxy)carbonyl, amino optionally mono- or disubstituted with C_{1-6} alkyl, amido, or

- (lower alkyl) amido; (iii) amino optionally mono-or-di-substituted with C₁₋₆ alkyl; amido; or (lower alkyl) amido; (iv) C₆ or C₁₀ aryl or C₇₋₁₆ aralkyl, all optionally substituted with C₁₋₆ alkyl,
- 5 hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆ alkyl; or (v) Het or (lower alkyl)-Het, both optionally substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-
- 10 substituted with C₁₋₆ alkyl; and
- (f) R₅ is H or C₁₋₆ alkyl;
- or a pharmaceutically acceptable salt, solvate or prodrug thereof.

- 15 20. A compound of Claim 19 wherein R₁₁ is selected from cyclopropyl, cyclobutyl or optionally substituted phenyl.

21. A compound having the formula



20

wherein:

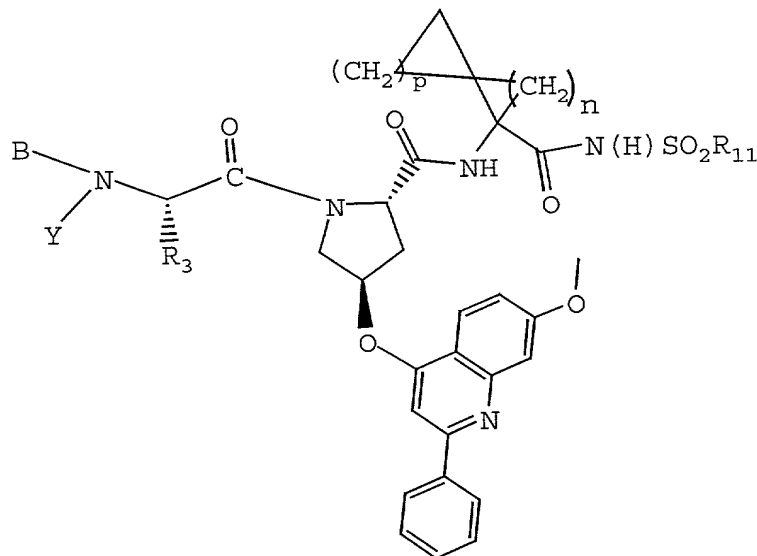
- (a) R₁₁ is C₁₋₈ alkyl, C₃₋₇ cycloalkyl, or C₄₋₁₀(alkylcyclo-alkyl), naphthyl, or phenyl

- wherein said phenyl is optionally substituted from one to three times with halo, cyano, nitro, C₁₋₆ alkyl, C₁₋₆ alkoxy, amido, or phenyl;
- 5 (b) R₃ is C₁₋₈ alkyl, C₃₋₁₂ alkenyl, C₃₋₇ cycloalkyl, or C₄₋₁₀ (alkylcycloalkyl), wherein the cycloalkyl or alkylcycloalkyl are optionally substituted with hydroxy, C₁₋₆ alkyl, C₁₋₆ alkenyl, or C₁₋₆ alkoxy;
- 10 (c) Y is H or C₁₋₆ alkyl wherein said alkyl is optionally substituted with cyano or C₃₋₇ cycloalkyl;
- (d) B is H, R₄-(C=O)-, R₄O(C=O)-, R₄-N(R₅)-C(=O)-, R₄-N(R₅)-C(=S)-, R₄SO₂-, or R₄-N(R₅)-SO₂-;
- 15 (e) R₄ is (i) C₁₋₁₀ alkyl optionally substituted with carboxyl, C₁₋₆ alkanoyl, hydroxy, C₁₋₆ alkoxy, amino optionally mono-or-di substituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (ii) C₃₋₇ cycloalkyl, C₃₋₇ cycloalkoxy, or C₄₋₁₀ alkylcycloalkyl, all optionally substituted with hydroxy, carboxyl, (C₁₋₆ alkoxy)carbonyl, amino optionally
- 20 mono- or disubstituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (iii) amino optionally mono-or-di-substituted with C₁₋₆ alkyl; amido; or (lower alkyl)amido; (iv) C₆ or C₁₀ aryl or C₇₋₁₆ aralkyl, all optionally substituted with C₁₋₆ alkyl,
- 25 hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆ alkyl; or (v) Het or (lower alkyl)-Het, both optionally substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-
- 30 substituted with C₁₋₆ alkyl; and
- (f) R₅ is H or C₁₋₆ alkyl;
- or a pharmaceutically acceptable salt, solvate or prodrug thereof.

22. A compound of Claim 21 wherein R_{11} is selected from cyclopropyl, cyclobutyl or optionally substituted phenyl.

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23. A compound having the formula



wherein:

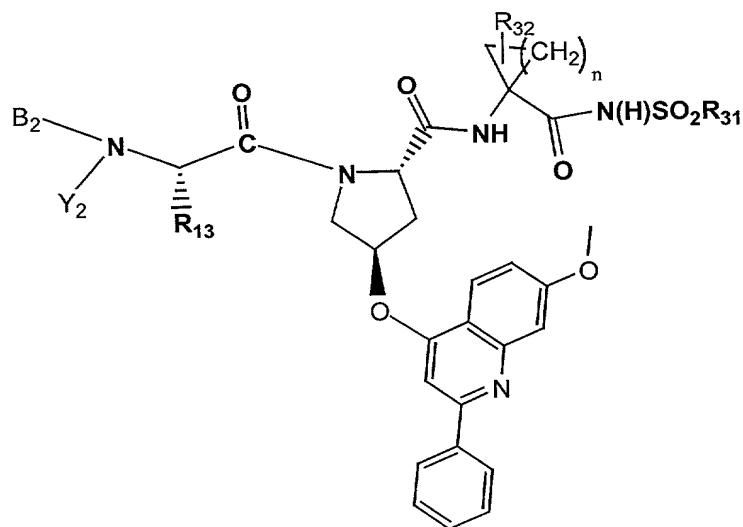
- (a) R_{11} is C_{1-8} alkyl, C_{3-7} cycloalkyl, or C_{4-10} (alkylcycloalkyl), naphthyl, or phenyl wherein said phenyl is optionally substituted from one to three times with halo, cyano, nitro, C_{1-6} alkyl, C_{1-6} alkoxy, amido, or phenyl;
- (b) R_3 is C_{1-8} alkyl, C_{3-12} alkenyl, C_{3-7} cycloalkyl, or C_{4-10} (alkylcycloalkyl), wherein the cycloalkyl or alkylcycloalkyl are optionally substituted with hydroxy, C_{1-6} alkyl, C_{1-6} alkenyl, or C_{1-6} alkoxy;
- (c) Y is H or C_{1-6} alkyl wherein said alkyl is optionally substituted with cyano or C_{3-7} cycloalkyl;
- (d) B is H, $R_4-(C=O)-$, $R_4O(C=O)-$, $R_4-N(R_5)-C(=O)-$, $R_4-N(R_5)-C(=S)-$, R_4SO_2- , or $R_4-N(R_5)-SO_2-$;
- (e) R_4 is (i) C_{1-10} alkyl optionally substituted with

- carboxyl, C₁₋₆ alkanoyl, hydroxy, C₁₋₆ alkoxy, amino optionally mono-or-di substituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (ii) C₃₋₇ cycloalkyl, C₃₋₇ cycloalkoxy, or C₄₋₁₀ alkylcyclo-
- 5 alkyl, all optionally substituted with hydroxy, carboxyl, (C₁₋₆ alkoxy)carbonyl, amino optionally mono- or disubstituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (iii) amino optionally mono-or-di-substituted with C₁₋₆ alkyl; amido; or (lower
- 10 alkyl)amido; (iv) C₆ or C₁₀ aryl or C₇₋₁₆ aralkyl, all optionally substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆ alkyl; or (v) Het or (lower alkyl)-Het, both optionally
- 15 substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆ alkyl;
- (f) R₅ is H or C₁₋₆ alkyl;
- (g) n is 1 or 2; and
- 20 (h) p is 1, 2, 3, 4 or 5,
- or a pharmaceutically acceptable salt, solvate or prodrug thereof.

24. A compound of Claim 23 wherein R₁₁ is selected

25 from cyclopropyl, cyclobutyl or optionally substituted phenyl.

25. A compound of having the formula



wherein:

- (a) R_{31} is C_{1-8} alkyl, C_{3-7} cycloalkyl, or C_{4-10} (alkylcycloalkyl), all optionally substituted with hydroxy, halo, C_{1-6} alkoxy, C_{1-6} thioalkyl, amido, amino, (C_{1-6} alkyl)amido, C_6 or C_{10} aryl, C_{7-16} aralkyl, Het, or (C_{1-6} alkyl)-Het, said aryl, arylalkyl or Het being optionally substituted with halo, alkyl or lower alkyl Het;
- (b) n is 1 or 2;
- (c) R_{32} is H, C_{1-6} alkyl, C_{1-3} alkoxy, C_{3-7} cycloalkyl, C_{2-6} alkenyl, or C_{2-6} alkynyl, all optionally substituted with halogen;
- (d) R_{13} is C_{1-8} alkyl, C_{3-12} alkenyl, C_{3-7} cycloalkyl, C_{4-13} cycloalkenyl, or C_{4-10} (alkylcycloalkyl), all optionally substituted with hydroxy, C_1-C_6 alkoxy, C_1-C_6 thioalkyl, amino, amido, (loweralkyl) amido, C_6 or C_{10} aryl, or C_{7-16} aralkyl;
- (e) Y_2 is H or C_1-C_6 alkyl;
- (f) B_2 is H, $R_{14}-(C=O)-$; $R_{14}O(C=O)-$, $R_{14}-N(R_{15})-C(=O)-$; $R_{14}-N(R_{15})-C(=S)-$; $R_{14}SO_2-$, or $R_{14}-N(R_{15})-SO_2-$;
- (g) R_{14} is (i) C_{1-10} alkyl optionally substituted with carboxyl, C_{1-6} alkanoyl, hydroxy, C_{1-6} alkoxy, amino

- optionally mono-or-di substituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (ii) C₃₋₇ cycloalkyl, C₃₋₇ cycloalkoxy, or C₄₋₁₀ alkylcycloalkyl, all optionally substituted with hydroxy, carboxyl, (C₁₋₆ alkoxy)carbonyl, amino optionally mono- or disubstituted with C₁₋₆ alkyl, amido, or (lower alkyl) amido; (iii) amino optionally mono-or-di-substituted with C₁₋₆ alkyl; amido; or (lower alkyl)amido; (iv) C₆ or C₁₀ aryl or C₇₋₁₆ aralkyl, all optionally substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆ alkyl; or (v) Het or (lower alkyl)-Het, both optionally substituted with C₁₋₆ alkyl, hydroxy, amido, (lower alkyl) amido, or amino optionally mono-or-di-substituted with C₁₋₆ alkyl; and
- (h) R₁₅ is H or C₁₋₆ alkyl.
26. A salt, solvate or prodrugs of a compound of Claim 25.
27. A compound of Claim 25 wherein R₃₁ is C₃₋₆ cycloalkyl, C₄₋₁₀ alkylcycloalkyl, C₁₋₈ alkyl CF₃ or CCl₃.
28. A compound of Claim 25 wherein B₂ is an acyl derivative of formula R₁₄-O-(C=O)- or a carboxyl of formula R₁₄-O-(C=O)-.
29. A compound of claim 25 wherein R₂ is H, C₁₋₃ alkyl, C₃₋₅ cycloalkyl, or C₂₋₄ alkenyl, all optionally substituted with halo.

30. A compound of claim 25 wherein R_{31} is C_{1-8} alkyl, C_{3-7} cycloalkyl, or C_{4-10} alkylcycloalkyl, all optionally substituted with hydroxy, C_{1-6} alkoxy, C_{1-6} thioalkyl, acetamido or C_6 or C_{10} aryl.
- 5
31. A compound of claim 25 wherein
B is $(CH_3)_3O-CO-$;
Y is H; n is 1;
 R_{31} is methyl, cyclopropyl or $-CF_3$;
10 R_{32} is ethyl or vinyl; and
 R_{13} is t-butyl, i-propyl, s-butyl, i-butyl or cyclohexylmethyl.
32. A pharmaceutical composition, comprising
15 (a) a compound of Claim 1-31, or a pharmaceutically acceptable salt, solvate or prodrug thereof; and
(b) a pharmaceutically acceptable carrier.
- 20 33. A method of inhibiting HCV NS3 protease which comprises administering to a mammal in need of such treatment a therapeutically effective amount a compound of Claim 1-31, or a pharmaceutically acceptable salt, solvate or prodrug thereof.
- 25
34. A method of for treating an HCV infection, in a mammal in need thereof, comprising the administration to said mammal of a therapeutically effective amount a compound of
30 Claim 1-31, or a pharmaceutically acceptable salt, solvate or prodrug thereof.